In general, the described implicit allocation of common channels DSCH allows the available channels to be split over all the connections V1, V2 with such flexibility that each individual connection V1, V2 is able to use a much higher transmission capacity than in the case of fixed allocation of the channels as dedicated channels DCH.

In this case, for statistical reasons, the limitation to particular combinations becomes less significant the more connections V1, V2 and common channels DSCH are available, if it is assumed that the ratio of the maximum data rate required by all connections V1, V2 to the data rate which is possible as a result of the use of all common channels DSCH remains constant.

An additional degree of freedom is possible if not every data rate has a fixed mapping, i.e. uniquely onto prescribed TFCI values, but instead alternatives can be chosen. For the purposes of illustration, Figure 8 shows, for a connection V1, the incorporation of the configuration of the common channels DSCH into the information signaled by the TFCI values.

A TFCI value represents a particular configuration of the services S1 to S3. To date, only one TFCI value for each permitted combination was appropriate. The extension by the configuration data for the common channels DSCH can now be used to allocate a particular service combination to different combinations of dedicated and common channels DCH, DSCH. In Figure 8, the TFCI values 2, 3 and 4 relate to the same service combination, but different allocated common channels DSCH are signaled.

If this table is allocated to a plurality of connections V1, V2, various common channels DSCH can be chosen as alternatives by selecting a suitable TFCI value 2, 3 or 4, in order to permit a high data rate for up to

three connections V simultaneously. By contrast, the low total data rate in the second row can always be transmitted in the permanently allocated dedicated channel DCH; for this reason, no common channel DSCH is necessary for this purpose.

The in-band signaling of the TFCI values is effected as shown in Figure 9. Within frame-by-frame transmission of data (data) together with other information, capacity is also provided for transmitting the currently chosen combination of the transport formats TF and allocation of the common channels DSCH in the form of the TFCI values. In the FDD mode of UMTS, a frame lasts 10 ms, with bits of a pilot sequence (pilot) serving for channel estimation, bits (pc) being required for transmission power regulation and bits being reserved for in-band signaling of the TFCI. Next comes a data component data with user information. Error protection coding of the TFCI on, by way of example, 32 bits and scrambling of the user information over a plurality of frames are not shown in Figure 9.